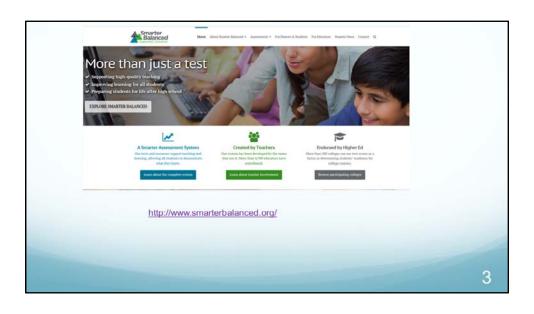
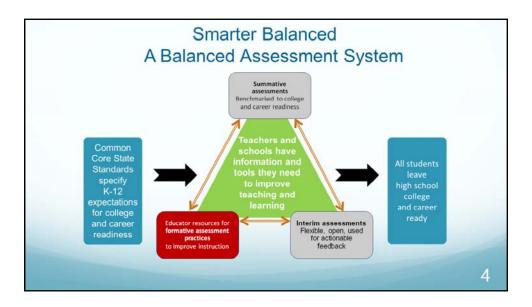


# Agenda

- Smarter Balanced Assessment System Overview
  - http://www.smarterbalanced.org/assessments/
- Formative Assessment Practices: Digital Library
- Interim Assessments
- Summative Assessments

2





This introduction slide is critically important for those who are new to the SBAC system. Many educators experienced the summative assessment during Montana's pilot in the spring of 2014, but it is important to note that the summative assessment is just one piece of the entire "Balanced Assessment" system.

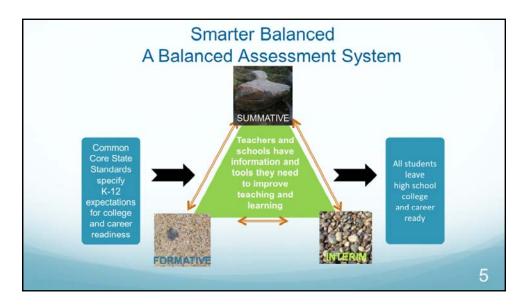
This slide has transitions and builds on mouse click... It is intended that the presenter speak about each piece of the assessment system.

Smarter Balanced is a balanced assessment system with three components, Summative, Interim and Formative.

Emphasize that Smarter Balanced is more than a summative test.

For educators, the most critical components are the Formative Assessment Practices and the Interim Assessments.

There is research to support the use of formative assessment as an effective means to improve teaching and learning.



This slide replaces the signs for formative, interim, and summative with pictures. The summative assessment is just one piece of the entire "Balanced Assessment" system. For educators, the most critical components are the Formative Assessment Practices and the Interim Assessments.

The formative assessment component is represented on this slide as grains of sand. This is the instructional component and provides the most detailed information about students' learning of the three components. There is research to support the use of formative assessment as an effective means to improve teaching and learning.

The interim assessment is represented on this slide as small pebbles; the details about students' learning are broader than when using the formative assessment process.

The summative assessment is represented on this slide as large rock; the details about student's learned are in blocks broader than those from the formative process and interim assessments.

# Formative Assessment Process Resource Digital Library



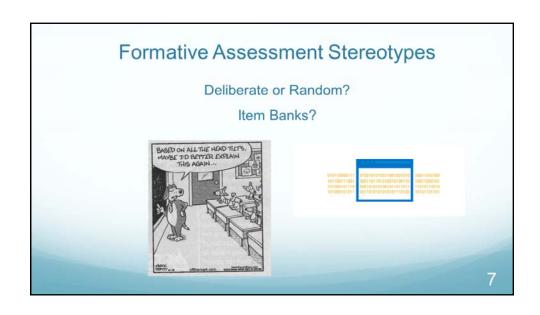
- Provide measurement tools and resources to
  - · Improve teaching and learning.
  - Provide resources to teachers to help them monitor their students' progress throughout the school year
- Illustrate how teachers and other educators can use assessment data to engage students in monitoring their own learning, and help teachers and other educators align instruction, curricula, and assessment.
- Help teachers and other educators use the summative and interim assessments to improve instruction at the individual student and classroom levels.
- Offer professional development and resources for how to use assessment information to improve teacher decision-making in the classroom.

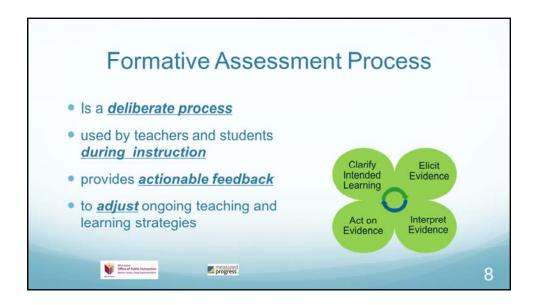
Sect, S. 2012). Smaller Balanced Assessment Consolium: Comprehensive, Fiscoarch Agenda, p.12. http://www. mailtethalanced.org/monteness/eg-content/uploads/2014/00/2marter-balanced Research-Agenda\_Reconstructions-2012-12-31 pdf

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The purpose of the Formative Assessment component is to provide educators with tools and resources that incorporate the formative assessment process and are designed to improve teaching and learning.

• The resources are housed in the Digital Library which we will discuss in more detail later in the presentation.





Formative assessment is not an event or a test, rather this definition illustrates that formative assessment is about the assessment practices and strategies employed by teachers and students while the learning is taking place.

A practice or strategy of formative assessment may utilize one or all of these attributes. In order to be posted to the digital library a resource had to illustrate at least one of these attributes.

## Cyclical:

Clarifying intended learning:

- --teachers and students understand the expectations and goals of the work they need to do
- --Learning goals in student friendly terms—what they need to learn, not what they are to do
- ----can be based on grade-level expectations, standard progressions, etc. of CCSS
- --Success criteria—observable and measurable behaviors that let the teacher and students know when the learning goal is reached

### Elicit Evidence

- -- No single way to gather evidence
- ----interaction with students during learning
- ----focused observations
- ----looking at and analyzing student work
- ----asking appropriate and strategic questions
- --intentional and planned for or spontaneous
- --can be elicited by teachers, peers, or students
- --occur while the learning is taking place

## Interpret Evidence

- --Determine what the evidence shows
- --determine where students are in relation to the learning goals and success criteria
- --determine adjustments to instruction—at the moment or for the next day
- --students can engage in their own learning and also interpret their own evidence and adjust their learning
- --peers can interpret evidence
- --practices implemented with students

### Act on Evidence

- --based on actionable feedback
- --teachers adjust instruction: grouping, mini-lessons, alternate instructional approaches
- --give students actionable feedback to take them from where they are to where need to be: hints and suggestions to act on in collaboration with students
- --effective feedback to align with students zpd (zone of approximal development)
- --students also can use strategies to move own learning forward
- --self and peer assessments and actionable feedback
- --timely, descriptive, actionable feedback.

# The Formative Assessment Process is NOT It is not a test. Not Common Formative Assessments Not benchmark assessments Not end-of-course assessments Not analysis of test data to make adjustments It is not random observations. It is not just good instruction.

CFA (Common Formative Assessments) vs. (FA)Formative Assessment Processes

- Need to reinforce the fact that CFAs should not be used synonymously with Formative Assessment. CFA are focused on data collection while formative assessment is focused on providing actionable feedback that informs decisions about individual student's learning.
- Formative Assessment is a collaborative process between teachers and students while CFA course/standards driven.

### **Good Instruction**

• Formative Assessment is part of good instruction but good instruction can incur without any formative assessment. Therefore, there must be a deliberate process to embed formative assessment.

Not Graded, Not an item or a test, not an event

Embedded tasks, questions, prompts specifically designed to determine if students are meeting the intended learning goals and targets.

Ongoing feedback between teacher and student.

# Formative Assessment Vignettes Example? Or Non-example?

# Formative Assessment— Vignette 1

### Math Quiz Fervor

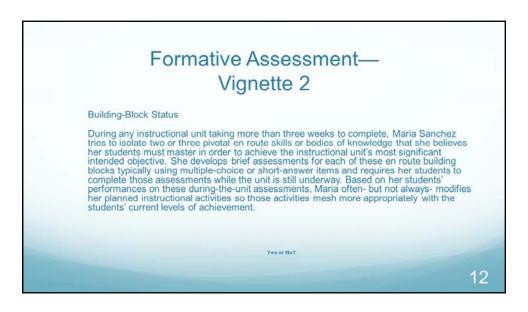
Paul teaches fifth grade students at Emerson Elementary School. His daily mathematics lessons are almost always concluded with a 5 item quiz because Paul believes the prospect of these end-of-lesson quizzes motivate his students to pay closer attention during the lesson. Paul uses an items-correct grading system whereby his students' final grade in mathematics is based on each student's average score on these per-lesson quizzes. Because Paul's students invariably score well on the mathematics section of the state's annual accountability tests, his principal expresses delight in Paul's frequent use of daily quizzes.

YES or No?

1

### Answer:

NO: Paul's frequent quizzes seem to be used exclusively for grading and motivation, not as evidence for Paul to make instructional adjustments or for his students to make adjustments in their learning tactics. This, therefore, would not be an instance of formative assessment.



Answer: Maria is most definitely using formative assessment. She focuses on a few key building blocks underlying her students' mastery of a target curricular aim and then uses classroom assessments to find out whether students appear to be mastering those building blocks. Based on her students' performances on these en route assessments, Maria, then, if necessary, adjusts her instructional plans. This is precisely the way that the formative assessment process is supposed to function.

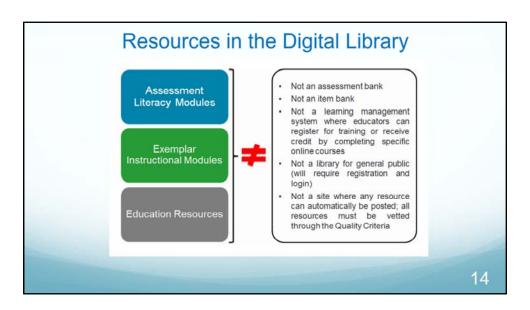


# The Digital Library



- An online collection of instructional and professional learning resources contributed by educators for educators.
  - Over 50 Montana educators and educators from other Smarter states.
- Aligned with the intent of the Common Core State Standards to support teachers in meeting the needs of a diverse range of learners, including English language learners, using the formative assessment process.

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It is important to emphasize that the Digital Library is **NOT** an item bank. There are **no Smarter Balanced test questions** in the Digital Library. **There is a rigorous review and vetting process for the submission of resources.** It is not a site where anyone can post.

# Digital Library Resources

- Vetted against a set of quality criteria
- Supported by research and evidence
- Connect the standards to formative assessment practices

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# Access to the Digital Library

- Provided by OPI to Montana educators at no charge
  - All licensed educators in Montana schools
- Have a password???
  - https://sso.smarterbalanced.org/auth/UI/Login

OR



- Don't have a password or don't remember it????
  - Pam Birkeland, pbirkeland@mt.gov
  - 406-560-2060

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# Interim Assessments Optional Periodic Tests

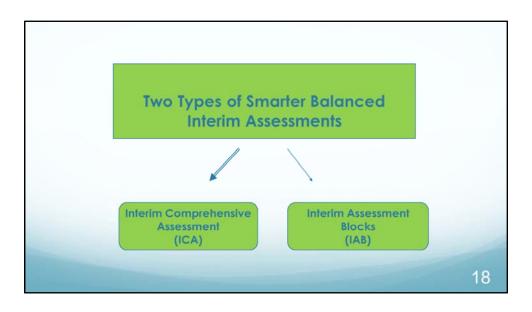


- For teachers to check student progress throughout the year.
- Given at the discretion of schools and districts.
- High-quality test items that are developed in the same way as those used for the summative assessments.
- Questions that can be machine scored by the Smarter Balanced Test Delivery Engine.
  - Constructed-response items and performance tasks are scored locally.

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The purpose of the Smarter Balanced Interim Assessment is to provide valid, reliable and fair information about student progress toward mastery of the concepts and skills measured by the summative assessment.

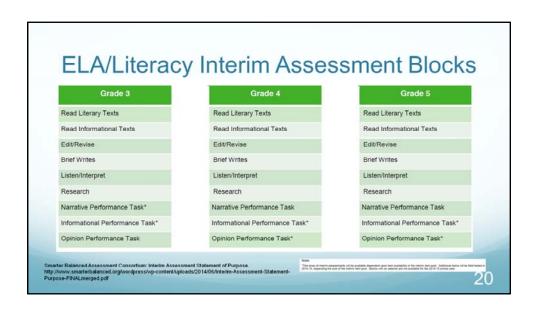
- There are two types of interim assessments, which we will discuss in more detail later in the presentation.
- The interim assessment blocks serve as progress checks, providing evidence on students' strengths and weaknesses in relation to the standards. These checks identify students needs as to how they are progressing in their understanding of the content taught.
- Interim assessments are also helpful in providing data about the strengths and weaknesses of curriculum or programs.

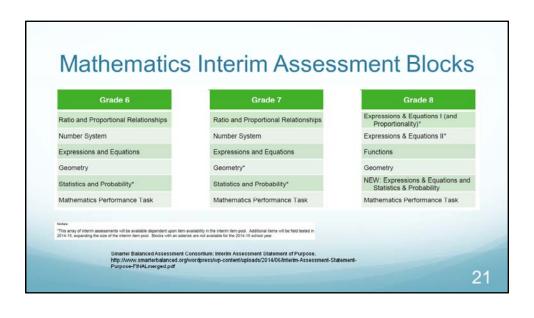


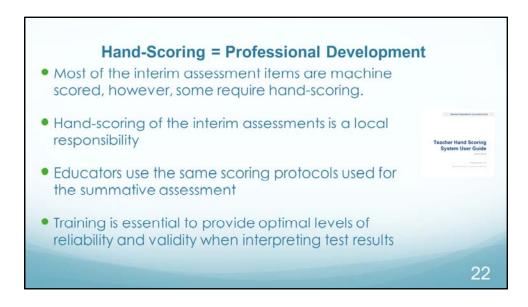
There are two types of interim assessments, the Interim Comprehensive Assessments (ICA) and the Interim Assessment Blocks (IAB).

Interim Ass	363311161113
Interim Comprehensive Assessments (ICAs)	Interim Assessment Blocks (IABs)
Same blueprints as the summative assessments and assess the same standards.	Smaller sets of targets and therefore more flexible to better support instruction
Fixed form tests. May become available as adaptive tests when item counts are adequate.	Fixed form tests. May become available as adaptive tests, as appropriate based on content and when item counts are adequate.
Same item types and formats, including performance tasks, as the summative assessments.	Same item types and formats, including performance tasks, as the summative assessments
Overall scale scores (on the same scale), overall performance levels, and claim-level information. Claim-level results reported as "Below Standard," "At/Near Standard," and "Above Standard". Aggregate target level data are available in most states (for ICA & summative).	Yield overall information for each block. Results reported as "Below Standard, "At/Near Standard," and "Above Standard". Item level analysis also available in most states.

In case you are asked about interpreting the Below, At/Near/ Above Standard scores, for the ICA, they are calculated using a comparison of the Claim scale score to the cut score for Level 3 on the whole ICA). (If the scale score for Claim 2/4 is higher than the Level 3 cut score, that is reported as Above Standard). This same type of calculation is used for the IAB scores. The individual IAB scale score is compared to the Level 3 cut score to arrive at either Above, At/Near, or Below standard. (Reminder that Claims 2 and 4 are reported as one score.)

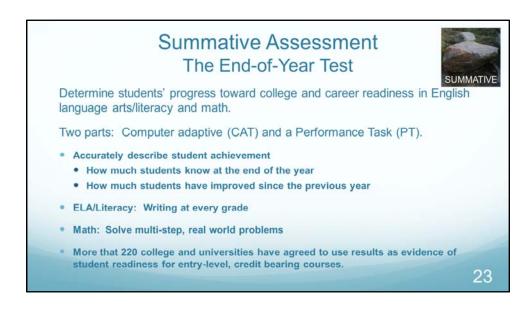






Training involves providing teachers with anchor sets called Exemplars. This is a set of student responses that were scored using the given rubrics.

Teachers then score additional responses on their own using the Training Guide.

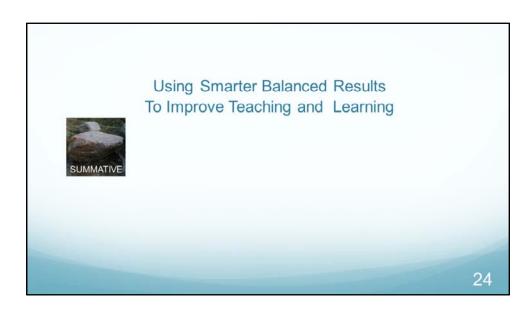


The purpose of the Smarter Balanced summative assessment is to provide valid, reliable and fair information about student achievement with respect to the CCSS.

For grades 3-8, the results provide information about whether students have demonstrated sufficient academic proficiency in ELA/Literacy and mathematics to be on track for leaving high school ready for post secondary success. For high school, the results provide information about whether students have demonstrated sufficient academic proficiency in ELA/Literacy and mathematics to be ready for credit-bearing college course work.

The test results provide a big picture summary of student achievement that should be used as the starting point for making inferences about what students know and can do.

The summative test is not intended to be used for diagnostic purposes other than to help educators make decisions regarding programs and instruction.



IV	lontana's	2015 D	ata	
Mathematics		ELA/L	ELA/Literacy	
Grade	% At/Above Proficient	Grade	% At/Above Proficient	
3	48	3	42	
4	40	4	41	
5	38	5	49	
6	36	6	43	
7	38	7	44	
8	34	8	42	
11	34	11	56	
All grades	38	All grades	45	

Montana's data is similar to other member state's data.

# Online Reporting System (ORS)



- http://www.opi.mt.gov/pdf/Assessment/SMART/S16marterOnlineReportingGuide.pdf
- Student reports and results
- Student completion/participation

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To log in to ORS, you must have an authorized email address and password, which is the same for TIDE, TDS and ORS. Contact your School Administrator if you do not have a TIDE account.

The ORS is a secure, role-based system. Your access to reports and data in the system depends upon your user role and your district and school associations. Access to the ORS is via the State Assessment Program Portal.

- 1. Navigate to the State Assessments Program Portal. Select your user role.
- 2. Select ORS. The Login page appears.
- 3. Enter your email address and password. Click Secure Login.

Welcome to the Online Reporting System What are you interested in viewing?  Interest Comm Disact 2009 (99%) -	
To view Perticipation Reports, click here: Plan and Manage Testing	
To view Score Reports, click here:	

The Welcome page appears when you first log in to the ORS and asks you to select the type of report you want to view. Note that you can navigate to a different report at any time within ORS.

**Plan and Manage Testing** provides participation data for students participating in an assessment. You can determine which students need to complete testing and who may need to take another opportunity of a test, if applicable.

**Score Reports** provides test score data. You can compare score data between individual students and the school or overall state average scores. Information on strengths and weaknesses in a specified field is also available by reporting category.



The ORS banner that is displayed on top of every page consists of buttons or "Global Tools" for accessing the different reports and performing different tasks.

- Score Reports takes you to the Home Page Dashboard that provides overall score data for your district, school, or students.
- **Test Management Center** provides access to participation reports and test summary statistics. You can also download large files of student results.
- **Inbox** takes you to the Inbox section of the Retrieve Student Results page that lists the student data files you have requested. You can also access the inbox from the Test Management Center drop-down list by selecting **Retrieve Student Results**.
- Search Students lets you search for student information by using the student's name or SSID number.
- Manage Rosters allows you to create custom rosters of your students for data analysis.

In addition, the banner consists of the following Global Tools. All the tools may not be available on every page.

• **Help** opens the *Online Reporting System User Guide*.

- **Print** provides options to print the data displayed on the page.
- Export exports the data displayed on the page as an Excel file.
- **Definitions** provides definitions for terms specific to the report you are viewing.



To help you quickly locate the score data you need, navigation in the ORS is designed to allow you to be able to explore within any of the three dimensions available in the data. These three dimensions parallel the three kinds of questions that the data can help you answer: Who, What, and When. This allows you to view data that can be analyzed appropriately by focus and encourages users to think about the educational questions to which they need answers and access information from that perspective.

The exploration menu, which appears when you click the magnifying glass icon on any score report, is the main method for moving between reports and deciding which type of data you would like to view. To navigate to a report:

- 1. From the exploration menu, make appropriate selections under the who, what, and when dimensions.
- 2. Click View.

Note that the dimension categories available depend on your user role, the report you are viewing, and the entity level where you have opened the exploration menu. If a drop-down list displays N/A or does not show any options, it means that you cannot navigate any further up or down in that dimension.

While in the ORS, it is recommended to use the exploration menu and other available tools to navigate within the system.

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	Number	of Students Tested a	nd Percentog	ge of Student	h Proficient in Demo District, 2015-	2916	
	ELALibrac	y .	Malhemo	ofics			
	and the last of	Standard of Persons Profes	train .	Standard of Standard	Percent Profesioni		
	trate 5	26 4%	Grade 5	267			
	Grade 5	278 475		129	25		
	State 6	242 495		210	395		
	Grade F	344 934	them?	216	27%		
	Grade 6 Grade 69	216 376	Grade 6 Grade 61	310	200		
							31

When you click **Score Reports** on the Welcome Page or from the banner, the Home Page Dashboard appears.

This page provides data about your students, the number of students tested, and the percentage proficient for the selected administration. District personnel see district summaries, school personnel see school summaries, and teachers see summaries of their students.

Click any table cell containing a value to begin exploring the data for a particular grade and subject.

* 39970 12 10 10 10 10	Home Page Dashboard: elect Test and Administration  administration for which you want to view score data.	
	Select Test and Year	
	Test Smarter Summative Administration: 2015-2016 •	
	Scores for students who were mine at the end of the selected administration	
	<ul> <li>Scores for my current shadents</li> <li>Scores for shadents who were mine when they tested during the selected administration</li> </ul>	
	O course to appealing this trade time ministed against any as appeals assume appeal	
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From the Home Page Dashboard, you can select the test and administration for which you want to view score data. You can also specify the students whose data you wish to view using the available radio buttons.

This feature is particularly helpful for school personnel who want to see how students currently assigned to the user's class roster performed in previous grades, even if students were enrolled in different schools during those previous administrations.

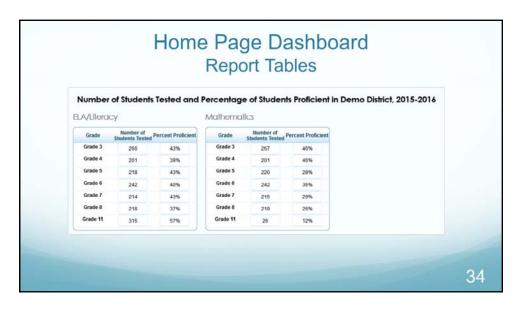
If you currently have a student who did not test in the selected test and administration, no data will be displayed for that student. An example may be students who moved to your school from out of state.

	Student Filters	
Scores for students who were mine at the end of the selected administration	Scores for my current students	Scores for students who were mine when they tested during the selected administration
Allows you to see score data for those students who tested in the selected test and administration	Allows you to immediately view score data for those students who are associated to your current rosters, even if they were previously enrolled in a different school or district	Allows you to see score data for those students who were associated with your school, district, or roster when they were tested in the selected test and administration

Scores for students who were mine at the end of the selected administration allows you to see score data for those students who tested in the selected test and administration and were associated with your school or district at the end of the selected test and administration.

**Scores for my current students** allows you to immediately view score data for those students who are associated to your current rosters, even if they were previously enrolled in a different school or district. This view enables you to see your current students' previous strengths and weaknesses before they begin testing this year.

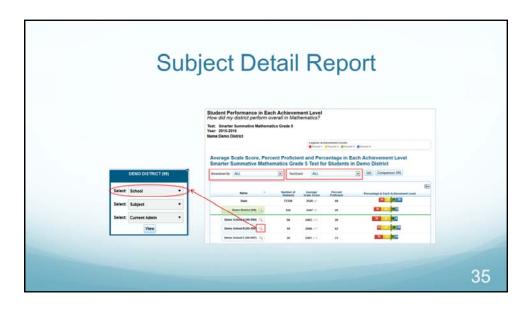
Scores for students who were mine when they tested during the selected administration allows you to see score data for those students who were associated with your school, district, or roster when they were tested in the selected test and administration.



The Home Page Dashboard displays aggregate data for each subject in a separate table.

- Grade displays the grade to which the score data belongs.
- Number of Students Tested displays the number of students to date who have completed and submitted their tests for scoring.
- Percent Proficient displays the percentage of students to date who have scored proficient on each test.

To access score reports for a particular subject and grade-based test, click a cell for the selected grade and subject. You will only see the tests administered by your district or school. Once a cell is selected, you will be directed to the selected Subject Detail Report.



This example shows the information a district user will see on the Subject Detail Report. It shows the list of schools in the district and their aggregate score data.

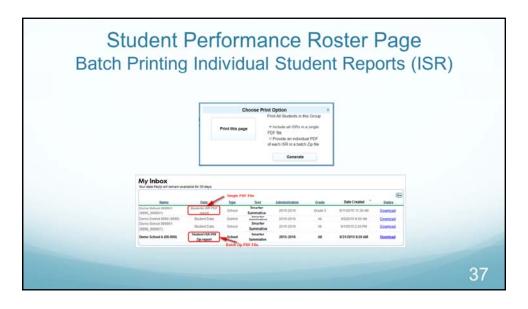
You can sort the data, show/hide columns, disaggregate data by subgroups and/or test events, and show or hide comparison data.

- To disaggregate the score data by a specific demographic subgroup category, from the *Breakdown By* drop-down list, select a subgroup and click **Go**. The report expands to display the data for each subgroup. For example, you can select gender to see the score data for All, Female, and Male students.
- To disaggregate the score data by a specific test event, from the Test Event drop-down list, select an accommodation and click Go. The report expands to display the data for each subgroup. For students who have multiple accommodations for a test (for example, braille contracted for CAT and braille uncontracted for PT), the report can be disaggregated to include these students into a separate category called "Multiple" or include them in both accommodation values.

To navigate to a more detailed level of the report, such as Teacher List, click the magnifying glass next to the school name, then select **Teacher** on the exploration menu that pops up, and click **View**.

Stude	ent Perforr	nance	Rostei	rage
	Student Performance in Each Achieve	ment Level		
	How did my students perform overall in A Test: Smarter Summative Mathematics Grade 6	fathematics?		
	Year: 2015-2016 Name Class A			
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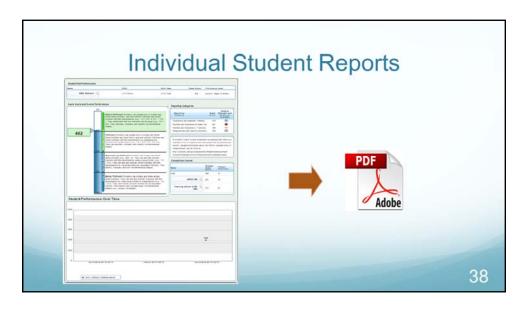
Using the exploration menu, you can view reports at different levels—district, schools, teachers, classes, and students. This is a sample student roster showing student performance in each achievement level.



Using the **Print** tool, you can batch print student reports in PDF format for all the students listed in the roster. You can either print the reports in a single PDF file where each individual score report is printed on a new page or you can generate individual PDFs for each individual score report that is provided in a zip file.

When batch printing student score reports, you can also choose to include all the opportunities taken by the student, the most recent opportunity, or the opportunity where the student has scored the highest (not currently shown in the above screen).

The PDF reports can be accessed from the My Inbox section of Test Management Center.



The students' individual score report presents a graphic representation of proficiency, along with a parent-friendly description of what it means. It includes more detailed diagnostic information and comparison scores for the class, teacher, school, district, and state. It also includes student performance on each claim along with a description of each claim. The report may also include a trend graph that plots the student's scale scores at each point in time (across test administrations both within and between school years) and visually depicts his or her performance over time.

If a student has taken multiple opportunities of the test, all the opportunities will be listed on the report and you can toggle between the opportunities by clicking the opportunity number.

Using the **Print** tool, you can generate a PDF report of the student's score report. You can choose to include all the opportunities taken by the student, the most recent opportunity, or the opportunity where the student has scored the highest.

		(	ال	aims		
District Performance What are my district's				s on the Mathematics test?		
Test: Smarter Summative Year: 2015-2016 Name:Demo District	Mathemat	ics Grade (	5			
			is	gend Claims Performance Calogory  Animo Monard: (2) Selfiner Standard (2) Selfiner		
Category				d Performance on Each Claim A lest for Students in Demo Distri		
Breakdown By: ALL			mpartun; 0%			
	Mumber of Students	Average	Persent	Cams	Frementage in Each Cuerns Performance Level.	
	tumber of Students 77258	Australia	Persent		Percentage in Earth	
None	Students	Average Scale Score	Persont Proficient	Claims Mathematics Concepts and Procedures Problem Solving and Modeling & Data Analysis	Percentage in Each Claims Performance Level 34 33 34 39 42 76	
Name -	Students 77252	Average Scale Score 2520 (3)	Percent Proficient	Clames  Mathematics Concept and Procedures Protein Storag and Modeling & Cula Analesia Communication of Storage and Modeling & Cula Analesia Communication of Storage and Modeling & Cula Analesia Concepts and Procedures Protein College and Analesia College and Modeling & Cula Analesia	Percentage is facts Claims Performance Level.  34 33 38 35 36 38 38 38 38 38 38 38 38 38 38 38 38 38	

Using the exploration menu, you can explore the "what" dimension and drill into more content detail at any level (e.g., school, district). This is a sample district claims report. Student's results by claims are seen on their individual reports.

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For any group of students who take the Smarter Summative tests, you can get reports for an individual target—the most detailed level of content.

Information presented compares whether performance was similar, better, or worse than overall performance.



Using the exploration menu, you can explore the "when" dimension and explore the performance for the school, teacher, or students over time. This is a sample district trend report.

## To view a trend report:

- 1. On the exploration menu, from the when dimension, select **Trend**.
- 2. Click View.

Every report lets you toggle between the detailed point-in-time report and a longitudinal graph of the same students over time. You will be able to see how students have performed in both the interim and summative assessments.



- This report is provided at an aggregate level and provides more fine-grained information that may be used to adjust instruction.
- Each Claim is further defined by a set of assessment targets. We will discuss this in more detail later in the presentation
- Point out the Legend and the fact that a ? Indicates that there are not enough points to make a valid interpretation for that particular target.

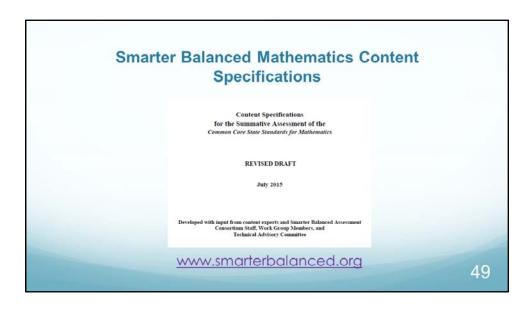


Now what? Teachers have the reports, but what do the scores mean?

Content Specifications for the Smarter Balanced Assessments What can we learn?

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The Smarter Balanced Content Specifications provide information on the content that is assessed on the summative assessment.



The Smarter Balanced Mathematics Content Specifications are posted on the Smarter Balanced Web site. There is a similar document for ELA/Literacy

# Smarter Balanced Claims and Assessment Targets

- Claim A summary statement about the knowledge and skill students will be expected to demonstrate on the assessment related to a particular aspect of the CCSS.
- Target Each claim is accompanied by a set of assessment targets that provide more detail about the range of content and Depth of Knowledge levels.

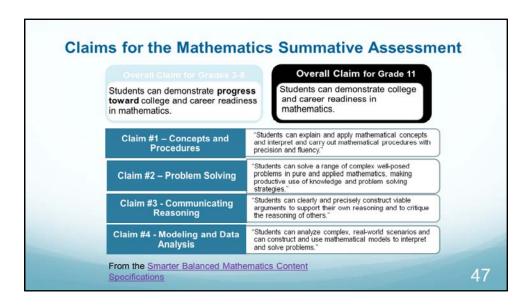
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Smarter Balanced was developed using an evidence centered design approach. For an evidence centered design approach, one begins with making high-level assertions about what students should know and be able to do.

The Smarter Balanced Claims are broad statements of the assessment systems learning outcomes, each of which requires evidence to support the inferences being made about what students know and can do.

Each Claim is accompanied by a set of assessment targets that provide more detail about the range of content and Depth of Knowledge levels. The targets are intended to support the development of high-quality items and tasks that contribute evidence to the claims.

This approach is different than the traditional approach to assessment development that most states previously used. For this approach, one starts with the complete set of standards and educators make decisions about the most important topics to assess, thus the assessment covers only a subset of the standards. For Mathematics, the assessments typically ignored the mathematical practices, or habits of mind that have been a component of state standards for many years.



The Overall Claims are specific to grades 3-8 (progressing towards college and career readiness) and grade 11 (demonstrate college and career readiness). The claims are summary statements about the knowledge and skills students will be expected to demonstrate on the assessment related to a particular aspect of the CCSS for Mathematics. The Overall Claim scale score is reported along with an associated achievement level (1,2,3,4)

The four Mathematics Claims under the Overall Claim across grades 3-8 and 11 are:

- Claim 1 Concepts and Procedures. Claim 1 items measure the extent to which students can explain and apply mathematical concepts and interpret and carry out mathematical procedures with precision and fluency.
- Claim 2 Problem Solving. Claim 2 items measure the extent to which students can solve a range of complex well-posed problems in pure and applied mathematics, making productive use of knowledge and problem solving strategies.
- Claim 3 Communicating Reasoning. Claim 3 items measure the extent to which students can clearly and precisely construct viable arguments to support their own reasoning and to critique the reasoning of others.
- Claim 4 Modeling and Data Analysis. Claim 4 items measure the extent to which students can analyze complex, real-world scenarios and can construct and use mathematical models to interpret and solve problems.

Claims 2 and 4 are reported as one score.

For additional information about the Smarter Balanced Claims, refer to the Smarter Balanced Mathematics Content Specifications available on the Smarter Balanced Web site.

# Mathematics Claim 1 vs. Claims 2, 3, and 4

- Claim 1 Targets
  - Grade specific
  - Drawn from the cluster headings of the Standards for Mathematical Content
- Claims 2, 3, and 4 Targets
  - The same across all grade levels
  - Drawn from the cluster headings of the Standards for Mathematical Practice

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### Read the slide.

Point out that the CCSS for Mathematics includes two sets of standards, the Standards for Mathematical Content and the Standards for Mathematical Practice.

The Practice Standards describe ways in which students should engage with the subject matter. They are habits of mind that educators should work to instill on students as they develop their expertise with mathematics.

The Content Standards are a balanced combination of procedure and understanding. Standards that begin with the word "Understand" often provide opportunities for students to connect the practices to the content.

Grade 8 SUMMATIVE ASSESSMENT TARGETS Providing Evidence Supporting Claim #1	
Claim #1: Students can explain and apply mathematical concepts and carry out mathematical	
procedures with precision and fluency.	
Content for this claim may be drawn from any of the Grade 8 charters represented below with a much greater proportion drawn from claimset selegiated "an (major) and the remainder drawn from claimsets designated "an" (major) and the remainder drawn from claimsets designated "an" (additional/supporting) — with these stems fleshing out the major work of the grade. Sampling of Claim #2, #3, and #4. Detailed information about how each Claim I assessment target is measured can be fround in the liens specifications. "Mathematics Oracle 64" ap folder available all high "www. unantroblated or "greater-ballment".	
The Number System	
Target A [a/s]: Know that there are numbers that are not rational, and approximate them by rational numbers. (DOK 1, 2)	
Expressions and Equations	
Target B [m]: Work with radicals and integer exponents. (DOK 1)	
Target C [m] Understand the connections between proportional relationships, lines, and linear equations. (DOK 1, 2)	
Target D [m]: Analyze and solve linear equations and pairs of simultaneous linear equations. (DOK 1, 2)	
Functions	
Target E [m]: Define, evaluate, and compare functions. (DOK 1, 2)	
Target F [m]: Use functions to model relationships between quantities. (DOK 1, 2)	
Geometry	
Target G [m]: Understand congruence and similarity using physical models, transparencies, or geometry software. (DOK 1, 2)	
Target H [m]: Understand and apply the Pythagorean theorem. (DOK 2)	
Target I [a*s]: Solve real-world and mathematical problems involving volume of cylinders, cones and spheres. (DOK 2)	
Statistics and Probability	
Total Mark Southern State of the Salar Sal	- I
Target J [a/s]: Investigate patterns of association in bivariate data. (DOK 1, 2)	

These are the targets for grade 8. You should note that the targets are drawn from the cluster headings of the CCSSM.

## Mathematics Claim 2 Targets

**Target A:** Apply mathematics to solve well-posed problems in pure mathematics and arising in everyday life, society, and the workplace. (DOK 2, 3)

**Target B:** Select and use appropriate tools strategically. (DOK 1, 2)

Target C: Interpret results in the context of a situation. (DOK 2)

**Target D:** Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flowcharts, or formulas). (DOK 1, 2, 3)

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Unlike Claim 1 assessment targets which are grade-level specific, the Claim 2, 3 and 4 assessment targets are common across all grades.

As you can see, the language of the targets are drawn from the Standards for Mathematical Practice.

Point out that Claim 2 problems are "well posed" as opposed to Claim 4 problems where students need to formulate a model.

# Math-Claim 3 Targets

- Target A: Test propositions or conjectures with specific examples. (DOK 2).
- **Target B:** Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. (DOK 3, 4).
- Target C: State logical assumptions being used. (DOK 2, 3)
- Target D: Use the technique of breaking an argument into cases. (DOK 2, 3)
- **Target E:** Distinguish correct logic or reasoning from that which is flawed and—if there is a flaw in the argument—explain what it is. (DOK 2, 3, 4)
- **Target F:** Base arguments on concrete referents such as objects, drawings, diagrams, and actions. (DOK 2, 3)
- **Target G:** At later grades, determine conditions under which an argument does and does not apply. (DOK 3, 4)

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Briefly read a few of the targets

# Mathematics -Claim 4 Targets Target A: Apply mathematics to solve problems arising in everyday life, society, and the workplace. (DOK 2, 3) Target B: Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. (DOK 2, 3, 4) Target C: State logical assumptions being used. (DOK 1, 2) Target D: Interpret results in the context of a situation. (DOK 2, 3) Target E: Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon. (DOK 3, 4) Target F: Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flowcharts, or formulas). (DOK 1, 2, 3) Target G\*: Identify, analyze and synthesize relevant external resources to pose or solve problems. (DOK 3, 4) \*Assessedin Performance Tasks only

For Claim 4, the problems are not neatly packaged, or well posed as they are in Claim 2. Students will need to formulate a model to solve the problem. This might entail

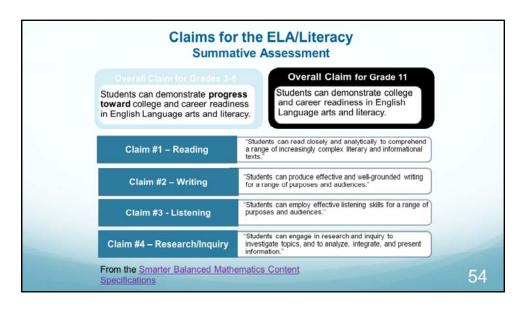
- · making some assumptions and simplifications
- Identifying data needed to solve the problem
- Estimate data that are missing

Make note of the fact that some of the targets for claims 2, 3 and 4 are the same, however, they are assessing the targets differently.

For example, Target A for Claim 4 is applying mathematics to solve problems that are not well posed as they are for Claim 2.

The Content Specifications provide more detailed information about the Smarter Balanced Claims and Targets

These are the Mathematical Practice Standards from the CCSSM. Notice that the language in the Practice Standards is represented by Claims 2, 3 and 4.



Like the Mathematics Claims, the Overall ELA/Literacy Claims are specific to grades 3-8 (progressing towards college and career readiness) and grade 11 (demonstrate college and career readiness).

The four ELA/Literacy Claims under the Overall Claim across grades 3-8 and 11 are:

- Claim 1 Reading. Claim 1 items measure the extent to which students can read closely and analytically to comprehend a range of increasingly complex literary and informational texts.
- Claim 2 Writing. Claim 2 items measure the extent to which students can produce effective and well-grounded writing for a range of purposes and audiences.
- Claim 3 Listening. Claim 3 items measure the extent to which students can employ effective listening skills for a range of purposes and audiences.
- Claim 4 Research/Inquiry. Claim 4 items measure the extent to which students can engage in research and inquiry to investigate topics and to analyze, integrate, and present information.

For additional information about the Smarter Balanced Claims, refer to the Smarter Balanced ELA/Literacy Content Specifications available on the Smarter Balanced Web site.

LITERARY TEXTS	INFORMATIONAL TEXTS
. KEY DETAILS	8. KEY DETAILS
. CENTRAL IDEAS	9. CENTRAL IDEAS
3. WORD MEANINGS	10. WORD MEANINGS
4. REASONING & EVIDENCE	11. REASONING & EVIDENCE
5. ANALYSIS WITHIN OR ACROSS TEXTS	12. ANALYSIS WITHIN OR ACROSS TEXTS
6. TEXT STRUCTURES & FEATURES	13. TEXT STRUCTURES & FEATURES
7. LANGUAGE USE	14. LANGUAGE USE

These are the Claim 1 Reading Targets. Notice that the targets are the same for both literary and informational texts.

1a:	WRITE BRIEF TEXTS (NARRATIVE)	
1b:	REVISE BRIEF TEXTS (NARRATIVE)	
2:	COMPOSE FULL TEXTS (NARRATIVE)	
3a:	WRITE BRIEF TEXTS (INFORMATIONAL/EXPLANATORY)	
3b:	REVISE BRIEF TEXTS (INFORMATIONAL/EXPLANATORY)	
4:	COMPOSE FULL TEXTS (INFORMATIONAL/EXPLANATORY)	
5:	USE TEXT FEATURES*	
6a:	WRITE BRIEF TEXTS (OPINION/ARGUMENTATIVE)	
6b:	REVISE BRIEF TEXTS (OPINION/ARGUMENTATIVE)	
7:	COMPOSE FULL TEXTS (OPINION/ARGUMENTATIVE)	
8:	LANGUAGE AND VOCABULARY USE	
9:	EDIT	
10:	TECHNOLOGY* *Not assessed in summative or interim assessments	
	From the Smarter Balanced ELA/Literacy Content	
	Specifications	

These are the Claim 2 Writing Targets.

To communicate effectively, students need to understand why they are writing, for what purpose and for what audiences.

The Smarter Balanced writing claims assess students ability to write for each of three purposes, narrative, informational/explanatory and opinion/argumentative.

Notice that students are expected to write and revise brief texts for each type of text

Students are also expected to compose full texts, also referred to as essays or full writes for each writing purpose.

Cla	im 3 Speaking and	I Listening Targets	
	SPEAKING	LISTENING	
	1: LANGUAGE AND	4: LISTEN/INTERPRET	
	VOCABULARY USE*		
	2: CLARIFY MESSAGE*		
	3: PLAN/SPEAK/PRESENT*		
	*Not assessed in summative or interim assessments		
	From the Smarter Balanced ELA/Li Specifications	iteracy Content	57

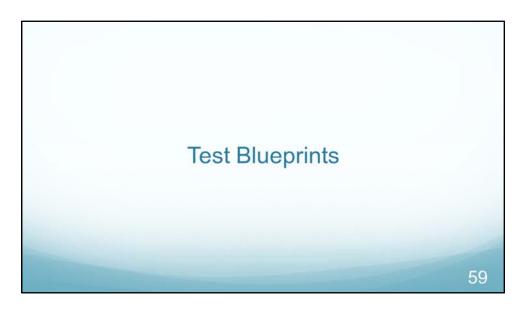
The CCSS Speaking and Listening standards required students to demonstrate a range of interactive oral communication and interpersonal skills. Students must work collaboratively; express their own ideas and listen carefully to the ideas of others, integrate information form oral, visual, and media sources, evaluate what they hear; use media and visual displays,; and adapt speech to context, content and task.

At the present time, the CCSS speaking standards and some of the listening standards that are included in the Comprehension and Collaboration Standards and the Presentation of Knowledge Standards, cannot be assessed for many reasons, including testing time parameters, technology and scoring limitations

GRADES 3-5	GRADES 6-8 AND 11
1— PLAN/RESEARCH*	1— PLAN/RESEARCH*
2— INTERPRET AND INTEGRATE INFORMATION	2— ANALYZE/INTEGRATE INFORMATION
3— ANALYZE INFORMATION/SOURCES	3— EVALUATE INFORMATION/SOURCES
4— USE EVIDENCE	4— USE EVIDENCE
	5— LANGUAGE AND VOCABULARY USE*
	6— EDIT*
	7— TECHNOLOGY* Not assessed in summative or interim asse

Inquiry and critical thinking are essential attributes of a student who is college and career ready.

Note that some targets are not assessed yet due to limitations with technology. For example, we currently are unable to assess students' ability to plan and do research. This would require an element of collaboration and access to the internet during testing.



Additional information about the assessments may be found in the test blueprints.

			3			
	Blueprint Table Methe Estimated Total Testing Time: 3:		Activity)1			
	Content Category*	56	mili	1 h	ms	Total Items by Cleim
Claim/Score Reporting Category	Comenic Category*	CAT	PT	CAT*	PD	Total items by Clein
Concepts and Procedures	Priority Cluster	0		12-15		16-20
	Supporting Cluster	0	0	45	0	
Problem Solving     Modeling and Data Analysis <sup>4</sup>	Problem Solving	0			24	8-10
	Modeling and Data Analysis	0	1	6		
3. Communicating Reasoning	Communicating Reasoning	0		8	0-2	8-10
Modeling and Data Analysis <sup>§</sup> Communicating Reasoning If times are estimates. Actual times may no receive information on content canagers with the larger, the total terms project.	Communicating Reasoning	0 Communicating Reason et is 18-20.	submarise to sing indicates	8-10 items in e	0-2	8-10

This is the overall summative assessment blueprint for grades 6-8 mathematics. The Interim Comprehensive Assessments follow the same blueprint as the summative assessments.

As you can see, the blueprint provides the number of CAT (computer adaptive test) and PT (performance task) items across each of the 4 claims.

The blueprints are posted on the Smarter Balanced web site (www.smarterbalanced.org)

		Target Sampling Mathematics Grade 8				
Claim	Content	Assessment Targets	DOK	100	icns	Total
	Category	<u> </u>		CAT	PT	
	equations.  O. Analysis and solve linear equations and pairs of simultaneous linear in the control of the contr	<ul> <li>Understand the connections between proportional relationships, lines, and linear equations.</li> </ul>	1,2	5-6		
		D. Analyze and solve linear equations and pairs of simultaneous linear equations.	1,2		1	
		B. Work with radicals and integer exponents.	1,2	5.6	1	
		E. Define, evaluate, and compare functions.	1, 2			
1. Concepts and	1 2	<ul> <li>G. Understand congruence and similarity using physical models, transparencies, or geometry software.</li> </ul>	1, 2			
Procedures		F. Use functions to model relationships between quantities.	1, 2		0	17-20
		H. Understand and apply the Pythagorean Theorem.	1.2	2-3		
		<ul> <li>A. Know that there are numbers that are not rational, and approximate them by rational numbers.</li> </ul>	1,2		1	
	Supporting Cluster	<ol> <li>Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.</li> </ol>	1,2	45		
		J. Investigate patterns of association in bivariate data.	1.2	1.		

The blueprint also shows more detailed information for each grade. Here is the information provided for Grade 8 Claim 1. The blueprint provides the number of Claim 1 items by assessment target.

For grade 8, each student will be presented with a total of 17-20 items for Claim 1. The numbers vary on the summative assessment because of the adaptive nature of the test. Notice that Claim 1 is assessed only on the CAT portion of the test

	T. Company	Target Sampling Mathematics Grade 8					
Claim	Content	Assessment Targets		CAY PT		Total	
	Problem	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2		-	
	Solving (drawn across content domains)	B. Select and use appropriate tools strategically.     Interpret results in the context of a situation.     Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1	1-2	8-10	
		Apply mathematics to solve problems arising in everyday life, society, and the workplace.     Interpret results in the context of a situation.	2, 3	1			
Data Analysis	Modeling and Data Analysis (drawn across content	Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem.     Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4	1	1-3	0.10	
	domains)	State logical assumptions being used.  F. Identify important quantities in a practical siluation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1			
		identify, analyze, and synthesize relevant external resources to pose or solve problems.	3.4	0	1		
		A. Test propositions or conjectures with specific examples.     D. Use the technique of breaking an argument into cases.	2, 3	3			
3. Communicating Reasoning	Communicating Reasoning (drawn across content	Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures.     Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4	3	0-2	8-10	
	domains)	State logical assumptions being used.     Base arguments on concrete referents such as objects, drawings, diagrams, and actions.     At later grades, determine conditions under which an argument does and does not apply.     Tor example, area increase, with perimeter for payages, but not for all plane figures.)	2, 3	2			

This slide shows the number of items for Claims 2, 3 and 4. Notice that Claims 2 and 4 are combined, as this is the way the scores are reported. Reporting these two claims separately doesn't yield enough points to provide a score that is reliable and allows for making valid inferences about what students know and can do. The blueprint also shows that some of these items are included in the CAT portion and others are included in the performance task.

# Reminders... Keep in mind that the CCSS for Mathematics: • are NOT discrete skills to be taught in isolation. • define both content and practices that should be included in instruction. Cloning, drilling and killing is not an effective instructional practice. High quality instructio Improved student achievement

This presentation is **not** about starting with a standardized test and trying to figure out how to prepare your students. Cloning, drilling and killing is **not** an effective instructional practice.

High quality instruction focused on developing students' habits of mind with the Practice Standards is transferable to the Smarter Balanced assessments.

Supporting Students Who Will Take the Smarter Balanced Assessments

What else should teachers do to support students who will take the Smarter Balanced assessments?

# Support for Students

- High quality instruction throughout the year.
- Digital Library resources
- Opportunities for students to engage with the Smarter Balanced Practice Tests and Training Tests.
  - Practice Tests are available by grade level
  - Training Tests are available by grade-band
  - Available on the Smarter Balanced Web site http://www.smarterbalanced.org/practice-test/

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Besides providing high quality instruction throughout the year, teachers should also provide students with opportunities to engage with the Smarter Balanced Practice and Training Tests. The Practice and Training Tests are available on the Smarter Balanced Web site.

# **Practice Test Scoring Guides**

- CAT and PT Scoring Guide for each grade and content area
- Mirror the items and performance tasks on the interim and summative assessments
- Illustrate the various student response types
- Provide correct responses, rubrics, and related scoring considerations

http://www.smarterbalanced.org/assessments/practice-and-training-tests/resources-and-documentation/

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There is a CAT and PT Scoring guide for each grade and content area.

Read the rest...

## Additional ELA Resources for Teachers

- Performance task writing rubrics
  - Argumentative
  - Explanatory
  - Informational
  - Narrative
  - Opinion
- Brief Write Rubrics
- Performance Tasks Conventions Scoring Chart
- Scoring Guide for ELA Full Writes (Annotated anchors)

http://www.smarterbalanced.org/assessments/practice-and-training-tests/resources-and-documentation/

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These are additional resources that are available for ELA

### **Project the ELA Practice Test Scoring Guide for Service Animals.**

Scroll through to show participants what is included in the guide:

- Directions that note the mode of writing (Opinion)
- Sources
- Questions with keys and rubrics

## **Next project the Grade 5 Service Animals Annotated Anchors**

Scroll through to show the various score points for each response

